that public broadcasters, like commercial broadcasters, would voluntarily provide an increasing amount of HDTV programming in response to viewers' desires and expectations.²⁹

While Public Television is confident that noncommercial stations would broadcast HDTV programming in response to viewer demand, it is important that they have flexibility in transitioning to HDTV broadcasts. Advances in ATV technology will increase dramatically the number of educational programs and services that noncommercial stations could provide. The Commission should not artificially constrain public television stations in making the fullest use of this flexible technology to fulfill their Congressional mandate to serve the needs of their communities. Noncommercial stations operated by educational institutions and those with specialized missions designed to serve particular unserved or minority audiences especially require this flexibility. For these reasons, Public Television urges the Commission not to impose a minimum HDTV requirement, at least not during the early years of the transition.

If the Commission nonetheless were to conclude that an HDTV minimum requirement is necessary, Public Television concurs with the Broadcasters' view that it should take a careful, incremental approach. Under such an approach, the Commission should assess real world factors, such as HDTV program availability, stations' HDTV program origination capability, and consumer acceptance, before deciding what level of required HDTV

Of course, passage of the proposed legislation would alleviate public television's funding crisis and thus enhance its ability to provide HDTV programming.

<u>See Section I supra.</u>

^{31/ 47} U.S.C. § 396(a)(6) (1991).

transmissions is appropriate. It would also be appropriate to give special consideration to noncommercial stations' funding constraints, which will make it particularly difficult for them to produce or acquire HDTV programming during the early years of the transition when the costs of HDTV production are likely to be high.

In any event, if the Commission were to impose a minimum HDTV requirement, either initially or at some point during the transition, it should adopt a liberal waiver policy for noncommercial stations. Implementation of a minimum HDTV requirement would present special problems for the Joint Operating Stations that are required to share a single ATV transition channel under the proposed legislation. Because broadcasting in the HDTV format requires the use of almost the entire 6 MHz bandwidth, such stations would not be able to transmit the full complement of their current broadcast services and also meet a minimum HDTV requirement imposed by the Commission. Thus, the Commission should adopt a policy under which the minimum HDTV requirement would be waived on a case-by-case basis. A waiver should be liberally granted upon a showing that adherence to the HDTV requirement would impair a noncommercial station's ability to deliver the full range of program services necessary to serve the needs of its community or to fulfill its nonprofit, educational mission.

(3) Ancillary Broadcast and Non-Broadcast Uses

The Commission requests comment on the extent to which broadcasters should be permitted to use their ATV spectrum for ancillary broadcast services and for uses other than free, over-the-air broadcasting.^{32/} Such uses may include ancillary services similar to those

See Fourth Notice at \P 23.

that could currently be provided using NTSC channels, and may also include nonbroadcast services, such as data transmission, video teleconferencing, and subscription television services.

Public Television concurs with the Broadcasters' view that the Commission should permit ancillary broadcast and non-broadcast services to develop in response to market demand. Noncommercial licensees in particular should be allowed to make full use of digital compression and multiplexing technology to provide ancillary services to complement their noncommercial broadcast services. As discussed above, Public Television stations will provide ancillary services to enhance their instructional programming and otherwise advance their educational mission. Furthermore, under the legislative proposal, ancillary uses would permit noncommercial stations to generate revenue to support their nonprofit operations and transition to ATV. 34/

If the Commission were to impose spectrum fees on ancillary services for which the licensee collects revenue, those fees should either be waived entirely or reduced to the minimum amount allowed by statute for public television stations, provided they use any revenues collected to support their noncommercial operations. As a matter of public policy,

 $[\]underline{\underline{33/}}$ See Section I.A.(3) supra.

Public Television also concurs with the Broadcasters' view that no limitations should be placed on ancillary and supplementary services, except those contained in the U.S. House of Representatives' Communications Act of 1995, H.R. 1555, 104th Cong., 1st Sess. § 336(b) (1995), and in the Senate's Telecommunications Competition and Deregulation Act of 1995, S. 652, 104th Cong., 1st Sess. § 206(a)(1)(A) (1995). In implementing such legislation, the Commission should presume that ancillary uses do not interfere with the broadcast use of the spectrum as long as the licensee provides at least one SDTV or HDTV broadcast service on the ATV channel during normal operating hours (for example, 6 a.m. to midnight, six days a week).

the Commission should not "tax" revenues that are generated for the purpose of funding public broadcasting's nonprofit operations or the transition of noncommercial stations to ATV. This would be consistent with the exemption of noncommercial stations from payment of annual regulatory fees^{35/} and filing fees.^{36/}

The channels that would be retained by the Fund for lease or auction to third parties may be used for a wide variety of broadcast and nonbroadcast purposes and would require special regulatory treatment. Since the legislation would direct that the Fund lease those channels to raise revenue for public broadcasting, the Commission should not impair the Fund's ability to maximize the revenue potential of the channels by imposing any limitations on their use for nonbroadcast services. Rather, the Commission should permit those channels to be used for any service, provided only that the uses made of the channels are consistent with the interference criteria utilized by the Commission in establishing the final table of ATV assignments and allotments.

C. <u>Public Interest Obligations</u>

Public Television concurs with the Broadcasters that the public interest obligations currently imposed on broadcast television licensees should continue to apply to the ATV channel. Those obligations should apply to the overall operation on the ATV channel and not to each individual program or service transmitted. For example, the public interest obligations should not attach to the portion of ATV capacity used by noncommercial stations

See Implementation of Section 9 of the Communications Act, 9 FCC Rcd 5333 (1994), recon. granted in part and denied in part, 78 R.R.2d 210 (1995).

See Establishment of a Fee Collection Program to Implement the Provisions of the COBRA of 1985, 2 FCC Rcd 947, 959 (1987).

for revenue generation. Further, these obligations should be applied only to commercial and noncommercial broadcast television licensees; they should not be applied to nonbroadcast licensees who may lease or purchase ATV spectrum from the Fund for nonbroadcast uses.

D. Length of Transition Period

As a general matter, Public Television supports the Broadcasters' call for flexible timing of the transition from NTSC to ATV for the reasons set forth in the Broadcasters' Comments. If the Commission nonetheless decides to set an objective benchmark to trigger the end of the transition, Public Television concurs with the Broadcasters that the benchmark should be based both on the total number of sets and total number of households capable of decoding and displaying ATV services, and that the Commission should review the impact of conversion on the viewing public prior to the conversion date. Public Television also agrees that any benchmark adopted by the Commission should be applied on a market-by-market basis to protect NTSC viewers in low penetration markets. 37/2

Under any transition scenario, Joint Operating Stations that share an ATV channel under the legislative proposal will require special consideration during the transition period. Specifically, such stations should be given the option of converting to ATV operations on their NTSC channels at any time during the transition period. While sharing arrangements may be necessary to free up noncommercial ATV spectrum to generate funds to support construction of ATV facilities and public broadcasting operations, such arrangements will

Public Television recognizes that a market-by-market approach may create some uncertainty or hardship for stations that operate on the fringe of two markets. However, the Commission could address those situations by granting waivers on a case-by-case basis where a station demonstrates that continued operation in a dual mode will impose unjustified costs on the licensee.

unavoidably restrict the programming discretion of individual public television stations, including the ability of such stations to offer their entire program schedule or a substantial portion thereof in HDTV. At some point prior to the conversion date, some of the Joint Operating Stations may wish to broadcast their entire prime time schedule, and perhaps programs during other dayparts as well, in HDTV or use ATV's multichannel capability to provide alternative program schedules. Such stations should be afforded the flexibility, upon application to the FCC, to switch from NTSC to ATV transmission on their NTSC channels at any time during the transition period.^{38/}

For noncommercial stations that operate their own ATV channels during the transition, the Commission should adopt a policy under which the conversion date would be waived on a case-by-case basis to permit a station to transition to ATV operations on one of the station's 6 MHz channels and cease its NTSC operations earlier. In order to obtain such a waiver, the station should be required to show that (1) continuing dual NTSC and ATV operations would place an undue financial burden on the station and (2) discontinuing NTSC operations would not deprive a substantial percentage of viewers in the market of noncommercial educational service. 39/

³⁸ In most cases, ATV transmission on channels currently used for NTSC will be technically feasible because any interference caused by the digital ATV signal will be less than that of the original NTSC signal.

Public Television also suggests in these Comments that noncommercial stations should be given flexibility in deciding when to begin operating their ATV facilities. See Section II.F. infra.

E. Recovery and Repacking of Spectrum

The proposed legislative plan would require special repacking and recovery rules for noncommercial stations. The legislation would direct the Commission to allow public broadcasters to retain their NTSC channels (or equivalent repacked 6 MHz channels) at the end of the transition period to be used for one of two purposes. (1) For those stations that are assigned a transitional ATV channel, their NTSC channel (or a repacked 6 MHZ equivalent channel) would be placed in the Fund on the conversion date and would be used thereafter to raise funds to support public broadcasting. (2) Those stations that do not receive their own transitional ATV channel (i.e., the Joint Operating Stations) would be permitted to convert to ATV operation on their NTSC channel (or a repacked 6 MHz equivalent channel).

The retention of NTSC spectrum by noncommercial broadcasters, either for the Fund or for permanent ATV operations, can and should be done in a manner that is consistent with the Commission's goals of repacking contiguous broadcast spectrum. The Commission could facilitate the transition of noncommercial stations to ATV service in a manner consistent with both the legislative proposal and the FCC repacking plan by adopting certain regulatory policies.

First, Public Television concurs with the Broadcasters that any relocation costs incurred by licensees to accommodate the Commission's repacking plan should be borne by the new spectrum users. Because of their precarious funding, public television stations will be particularly disadvantaged by having to incur relocation costs in addition to ATV transition

costs. 40/4 As the Commission notes in the Fourth Notice, there is precedent in the PCS service for requiring new spectrum users to pay the costs incurred by displaced spectrum users in moving to new frequencies, 41/4 and there is particular reason to follow that precedent here.

More importantly, the Commission should design its initial allocation/assignment plan so as to avoid, to the extent possible, requiring public television stations to move to new ATV channels at the end of the transition period to accommodate repacking. Reimbursing noncommercial stations for relocation costs may not fully compensate them for their loss, as these stations would be forced to endure disrupted operations and audience dislocation in the interim. In addition, there may be a delay between the time the Commission requires stations to relocate to the repacked broadcast spectrum and the time when the new users of the abandoned spectrum are identified and required to reimburse those stations. Thus, the burden of relocating would be particularly onerous for noncommercial stations and should be avoided to the fullest extent possible.

Broadcast transmitters and antennas perform only within a specified bandwidth. Thus, a station that must move to a new channel would have to modify and, in some cases, purchase new transmission equipment and antennas. In a worst case scenario, some stations might even have to move a tower to avoid short-spacing or interference problems resulting from the move to a new channel.

See Fourth Notice at ¶ 60 and n.63.

On a separate but related point, noncommercial television stations in rural areas -particularly state networks like those in South Dakota and Nebraska that serve an entire state
with multiple VHF transmitters -- would face severe hardships if forced to move from VHF
channels to UHF channels. As a result of their propagation characteristics, full power VHF
stations can serve much larger areas than full power UHF stations and thus can provide
coverage of large, sparsely populated rural areas much more efficiently. In addition, UHF
stations must incur much higher power costs that may not be affordable by noncommercial
(continued...)

F. Length of Application and Construction Periods

The Commission proposes to modify slightly the timetable and procedure under which stations will be required to apply for ATV channels and construct new ATV facilities.

Stations would have six months from the Commission's adoption of an ATV standard or allotment table, whichever is later, to confirm to the Commission that they intend to apply for an ATV license, and three years from the adoption of the standard or allotment table to apply for a channel. Stations would have a total of six years to both apply for and construct the ATV facility. 43/

Public Television urges the Commission to give noncommercial stations great flexibility in the ATV application and construction process to facilitate their transition to ATV. Relaxing, or even eliminating, the financial qualifications requirement is a step in that direction. In previous filings, Public Television described the reliance of noncommercial stations on a number of different funding sources, none of which standing alone is sufficient to support its capital or operating costs. It explained in detail why public television funding is a complex process; must proceed on several fronts simultaneously; requires substantial lead time; and is dependent on the vagaries of the political process (at both the Federal and state levels) and on the generosity of corporations, foundations, and viewers (which in turn may

 $[\]frac{42l}{2}$ (...continued)

stations in rural areas. Thus, forcing those stations to move from their current VHF channels to UHF channels could result in a substantial loss of noncommercial television service in rural areas. This issue will be addressed further by Public Television in response to the Commission's further notice of proposed rulemaking concerning ATV allotments and assignments. See Fourth Notice at ¶ 19.

 $[\]frac{43}{}$ See id. at ¶ 63-65.

depend largely on unpredictable economic factors). Because noncommercial stations' funding is neither dependable nor within their control, Public Television has urged -- and continues to urge -- the Commission not to require noncommercial stations to demonstrate their financial qualifications in order to apply for ATV channels.

The importance of exempting noncommercial stations from any financial qualifications requirements is even greater now in view of recent reductions in, and the uncertain future of, federal funding for public broadcasting, discussed above. Such an exemption would be necessary even if the proposed legislation were enacted. Although that legislation would in theory replace annual federal appropriations and assist stations with the construction of ATV facilities, substantial uncertainties would remain concerning how much revenue the Fund would generate, when such revenues would be generated, what portion of such revenues would be allocated for ATV construction, and how long (and at what level) existing Federal and State funding would continue as public broadcasting stations transition to their new funding source.

The Commission can rely on noncommercial stations to construct ATV facilities without requiring them to demonstrate their financial qualifications at the outset. Public

<u>See</u> 1993 Public Television Comments, at 2-20.

See id. at 11-16. Historically, matching grants by the Public Telecommunications Funding Program ("PTFP"), currently administered by the National Telecommunications and Information Administration, have provided an important portion of public television's capital costs for equipment. As Public Television demonstrated in its earlier filings, PTFP funding levels over the past several years are not nearly sufficient to finance the construction of ATV facilities by noncommercial stations across the nation within a 6-year period. Those funding levels have declined in recent years and, more significantly, the future of PTFP is uncertain. See Section I.B. supra.

<u>See Section I.B. supra.</u>

stations have a track record of constructing and operating television facilities, often in the face of severe financial difficulties. Such stations will also have strong incentives to implement ATV service. In the near term, they will have to implement ATV service in order to provide television service that is comparable in technical quality to that provided by commercial broadcasters and other video delivery systems, which viewers will increasingly come to expect. In the long-term, stations will have to construct ATV facilities or else cease to exist, given the Commission's unmistakable intent to require cessation of NTSC broadcasts at the end of the transition period.

Moreover, as discussed in the Broadcasters' Comments, the challenges of transitioning to ATV, including capital and transaction costs, are particularly burdensome for smaller stations, stations in smaller markets, and noncommercial stations. Such challenges, combined with Public Television's funding crises, counsel for a less demanding construction timetable. For these reasons, Public Television urges the Commission not to require noncommercial stations to construct ATV facilities within six years. Rather, noncommercial stations that receive their own transitional ATV channel should be required only to construct and begin operating their ATV facilities some time prior to the ultimate conversion deadline.^{47/} Such flexible construction periods would allow noncommercial stations to install ATV facilities when funding becomes available. As discussed above, noncommercial

For example, if the Commission were to adopt a transition benchmark based on ATV set penetration or a similar standard, a lower benchmark could be used as the trigger for public television stations to start constructing ATV facilities. This would not delay the Commission's recapture of commercial broadcast spectrum upon completion of the transition.

stations and the public broadcasting system as a whole have compelling incentives to implement ATV as soon as their funding sources permit.

Finally, without an arbitrary construction deadline looming, revenues generated by the Fund could be allocated in a manner that optimizes public television stations' ability to transition to ATV. This would further the Congressional and Commission policies of preserving noncommercial television services in the ATV era. 48/

G. Must-Carry Rights

In the Fourth Notice, the Commission states that the current cable must-carry requirements will continue in effect during the transition to ATV, at a minimum, for broadcasters' NTSC channels. The Commission seeks comment on whether it should also require cable systems to carry a broadcaster's ATV signal during the transition. Because the policies underlying the must-carry rules apply equally to both the NTSC and ATV channels and cable carriage of both is essential to an orderly and rapid transition to ATV, the Commission should require cable systems to carry both broadcast signals. Such an obligation is required by both the policy and language of Section 615 of the Act.

When Congress enacted the 1992 Cable Act, it required cable systems to carry the signals of a minimum number of noncommercial television stations, depending on the size of

<u>48/</u> <u>See, e.g.</u>, 47 U.S.C. § 396(a)(5) (1988); <u>Public Broadcasting Act of 1967</u>, Pub. L. No. 90-129, 81 Stat. 365 (1976), S. Rep. No. 222, 90th Cong., 1st Sess. 1 (1967), <u>reprinted in 1967 U.S.C.C.A.N. 1778 (1976)</u>; <u>Public Telecommunications Financing Act of 1988</u>, H.R. Rep. No. 825, 100th Cong., 2d Sess. 14 (1988), <u>reprinted in 1988 U.S.C.C.A.N. 4357</u>, 4368 (1988).

Fourth Notice at ¶ 82.

 $[\]underline{\underline{1d}}$ at ¶¶ 82-84. Public Television only addresses the issue of cable carriage of noncommercial stations in this Section.

the cable system. That obligation was designed to achieve two goals: (1) to assure that cable subscribers have access to public television programming and (2) to preserve the vibrancy and viability of the nation's public television system. Congress found that cable systems effectively controlled the television signals available to their subscribers and thus could deny more than 66% of the nation's households access to public broadcasting. Congress also concluded that the loss of any significant portion of that cable audience would jeopardize the financial viability of public television stations, thereby threatening the availability of public television programming to all Americans. The findings and policy determinations underlying the statutory must-carry requirements are equally applicable to the carriage of noncommercial ATV signals. Standing alone, these findings clearly justify requiring cable systems to carry a noncommercial broadcaster's ATV signal.

Equally important, requiring carriage of ATV transmissions would greatly advance the Commission's goals of facilitating the rapid transition to broadcast ATV service and recovery and repacking of broadcast spectrum. Without cable carriage, it would be more difficult for both commercial and noncommercial broadcasters to make the substantial investment required

See Cable Television Consumer Protection and Competition Act of 1992, Pub. L. 102-385, § 2(a)(8), 106 Stat. 1460, (1992), (codified at 47 U.S.C. § 535 (Supp. 1995)) ("The Federal Government has a substantial interest in making all nonduplicative local public television services available on cable systems."); H.R. Rep. No. 628, 102d Cong., 2d Sess. 1, 69 (1992) (must-carry "is necessary to advance the government's compelling interest in ensuring that these millions of American cable subscribers maintain access to local public television services."); id. at 74 (must-carry serves "the vital, long-standing Congressional interest in protecting the viability of public television ...").

to construct ATV stations⁵²⁷ and provide ATV programming, because they will not be assured of access to a major portion of their potential audience.⁵³⁷ The other regulatory measures proposed by the Commission in this proceeding -- construction deadlines, simulcasting and HDTV programming requirements -- would be far less effective in facilitating the transition to ATV if cable operators could deny broadcasters access to 66% or more of the television audience.

Moreover, as the Commission implicitly recognizes in the Notice, a carriage of NTSC signals is required to avoid disenfranchising those households that have only NTSC receivers. Indeed, it would be anomalous for the Commission to require broadcasters to operate in an NTSC mode throughout the transition to assure that NTSC-only households have access to broadcast programming and yet allow cable operators to deny those same households access to that programming. In short, if the transition envisioned by the Commission -- during which viewers will continue to have access to existing broadcast services while the industry and consumers migrate to a digital environment -- is to be a true transition, cable systems must carry both the NTSC and ATV programming of broadcast stations.

Without must-carry rights for a broadcaster's ATV signals, banks and other lenders would probably be reluctant to lend the broadcaster the funds needed to construct ATV facilities because its ability to reach its audience would be impaired by the lack of cable carriage.

While more than 66% of the nation's households subscribe to cable, an even higher percentage of consumers who purchase digital sets during the transition period are likely to be cable subscribers.

Fourth Notice at ¶ 82.

Cable carriage of both the NTSC and ATV programming of public broadcasters is required under Section 615. That Section requires cable operators to carry the "signals" of qualified noncommercial educational television stations, subject to certain ceilings for cable systems with 36 or fewer channels. Thus, if an ATV channel were licensed to a noncommercial station during the ATV transition period, the cable system would be required under Section 615 to carry that ATV signal as well as its NTSC signal.

Cable systems should be required, subject only to any technical limitations on the cable system's ability to pass through multiple digital signals, to carry all of the broadcast programming services carried on the 6 MHz ATV channel, whether those services are a single HDTV transmission or multiple SDTV transmissions. It is particularly important that cable systems be required to carry all broadcast programming carried on those ATV channels that would be shared by several noncommercial stations under the legislative proposal. Those channels are likely to be multiplexed to carry multiple program services and preserve the full range of noncommercial program services in the market. Viewer access to the full range of

^{55/} See 47 U.S.C. § 535 (Supp. 1995).

Section 615(e) provides that cable systems with 36 or more channels that carry three noncommercial stations need not carry additional public television stations that substantially duplicate the programming of a station already carried. The Act gives the Commission discretion to define "substantial duplication." See 47 U.S.C. § 535(e). The current definition, which was adopted with only NTSC operations in mind, could result in a loss of carriage rights for ATV signals that, either voluntarily or in accordance with Commission rules, simulcast a substantial portion of NTSC programming. See 47 C.F.R. § 76.56(a)(iii) (1994). Accordingly, Public Television urges the Commission to modify that definition so that the transmission of programming in different formats (i.e., ATV vs. NTSC) to different audiences (i.e., consumers with and without digital receivers) would not be considered "substantial duplication" for purposes of Section 615.

noncommercial services can be assured only if cable systems are required to carry all broadcast programming transmitted by public television stations over their ATV channels.

Similarly, if the Fund leases or auctions a channel to a third party and the Commission licenses that party to provide commercial broadcast service, that licensee should have the same rights under Section 614 of the Act as any other commercial broadcast licensee. 57/

Cable operators' obligations under the Act to carry broadcasters' NTSC and ATV signals in a digital environment would be no more "burdensome" than their current carriage of analog signals. Indeed, any such burden will probably decrease substantially as cable systems convert to digital technology. A cable operator will be able to carry twice as much data as a broadcast station on a 6 MHz digital channel (approximately 40 M/bits/sec. of data versus approximately 20 M/bits/sec.). Moreover, cable systems have already been increasing their channel capacity at a steady rate, and substantial further increases are projected during the next few years. These increases in cable system capacity, together with cable conversion to digital transmission, will enable most cable systems to carry broadcasters' NTSC and ATV channels with minimal burden on the cable systems.

This would not enlarge the must-carry obligations of cable operators because the channels to be leased or auctioned by the Fund would, absent the legislation, be licensed to individual broadcast stations for transitional ATV purposes and would then have to be carried by the cable system pursuant to Section 615, as discussed above. While the Fund will also be able to lease or auction vacant noncommercial NTSC allotments and the ATV channels paired with those allotments, those channels are unlikely to be used to provide commercial broadcast service since they are located primarily in rural areas.

For example, Paul Kagan Associates, Inc. recently projected that cable channels would increase from 43 in 1994 to 50 in 1995, with a steady increase to 180 by the year 2003 The Kagan Media Index, Sept. 30, 1994, p.2. Kagan has also projected that 75% of cable homes will receive digitally compressed signals by the year 2000.

H. All-Channel Receiver Issues

Public Television supports the Broadcasters' position that the Commission should require, at an appropriate juncture during the transition period, that all television sets sold in the United States have the capability to receive and display ATV services, including HDTV programming. Public Television also endorses the Broadcasters' views that ATV receivers and set-top boxes should conform to the Grand Alliance performance standards; that ATV receivers and set-top boxes should be capable of displaying all broadcast signals included in the ATV standard; and that ATV channel designations should be "transparent" to consumers.

CONCLUSION

For the foregoing reasons, the Public Broadcasting Service and the Association of America's Public Television Stations urge the Commission to adopt rules that will afford noncommercial stations a realistic opportunity to transition to ATV operation and maximum flexibility to utilize ATV to advance their noncommercial, educational mission.

Respectfully submitted,

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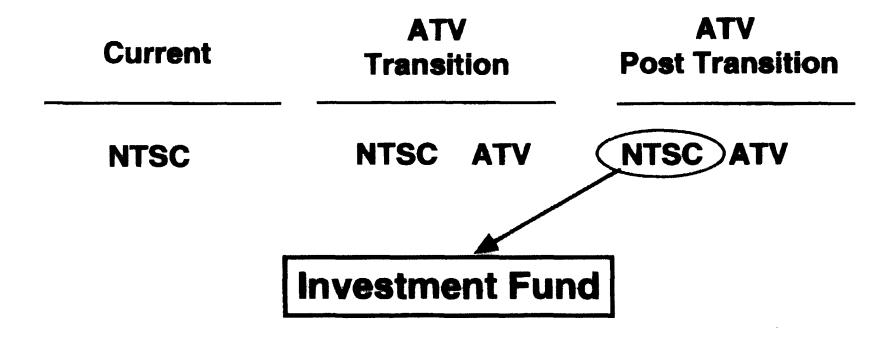
1320 Braddock Place

Alexandria, Virginia 22314

November 20, 1995

EXHIBIT A

ATV Proposal Single Licensee Area



ATV Proposal Multiple Licensee Area

